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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,766	12/29/2006	Hideki Hasegawa	43512-103808	5560
23644 7590 03/18/2011 BARNES & THORNBURG LLP P.O. Box 2786 CHICAGO, IL 60690-2786				
EXAMINER				
BOESEN, AGNIESZKA				
ART UNIT		PAPER NUMBER		
1648				
NOTIFICATION DATE		DELIVERY MODE		
03/18/2011		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Patent-ch@btlaw.com

Office Action Summary

Application No.

10/567,766

Applicant(s)

HASEGAWA ET AL.

Examiner

AGNIESZKA BOESEN

Art Unit

1648

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The Amendment filed December 1, 2010 in response to the Office Action of July 13, 2010 is acknowledged and has been entered. Claim 11 has been amended. Claims 11-14 are under examination in this Office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Rejection of Claims 11-14 under 35 U.S.C. 103(a) as being unpatentable over Kedar et al. (US Patent 5,919,480) in view of de Haan et al. (Vaccine, 1995, Vol. 13, p. 155-162) and Knight et al. (Research in Veterinary Science, 1977, Vol. 23, p. 38-42 in IDS on 10/22/2008) is **withdrawn** in view of Applicant's arguments.

New Rejection

Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moldoveanu et al. (Vaccine, 1998, Vol. 16, p. 1216-1224) in view of Wong et al. (Antimicrobial Agents and Chemotherapy, 1995, Vol. 39, p. 2574-2576).

Moldoveanu teaches a method for preventing influenza infection comprising administering influenza HA protein and CpG DNA in an aqueous solution to the nasal mucosa in mice (see page 1217 under Immunization and page 1220 right column and Figure 4). Moldoveanu teaches generation of secretory IgA antibody responses in mice immunized

intranasally with influenza HA protein and CpG DNA in an aqueous solution (see Figure 4 and Discussion).

Moldoveanu does not teach administering double stranded RNA Poly(I:C).

Wong teaches prophylactic and therapeutic effect of Poly(I:C) against respiratory influenza A virus infection (see pages 2574 and 2575, Figure 1 and Figure 1). Wong teaches that intranasally administering Poly(I:C) in mice showed more than two fold decrease in influenza virus titer in lung homogenates in Poly(I:C) pretreated mice compared with non-pretreated mice subsequently exposed to lethal doses of influenza virus (see page 2574).

It would have been prima facie obvious and the skilled artisan would have been motivated to provide the method of Moldoveanu comprising administering influenza HA antigen and Poly(I:C) taught by Wong (instead of CpG DNA) because Wong teaches that Poly(I:C) provides a highly effective prophylaxis against respiratory influenza A infection in mice (see abstract and Table 1). Absent any unexpected results, it would have been obvious to administer the composition at least twice and at least once a week

The present claims would have been obvious because the substitution of one known element the CpG DNA, taught by Moldoveanu for another Poly(I:C), taught by Wong would have yielded predictable results to one of ordinary skill in the art at the time of the invention (i.e. generation of protective immune responses against influenza infection in mice). See KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385 (U.S. 2007).

All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective

functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Therefore, the invention as a whole was prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Conclusion

No claim is allowed.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zachariah Lucas can be reached on 571-272-0905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Agnieszka Boesen/
Examiner, Art Unit 1648

